WHAT IS CLAIMED IS:

1. A method for enhancing delivery of a compound into and across an animal ocular tissue, the method comprising:

administering to the ocular tissue a conjugate comprising the compound and a delivery-enhancing transporter,

wherein:

i. the compound is attached to the delivery-enhancing transporter through a linker, and

ii. the delivery-enhancing transporter comprises fewer than 50 subunits and comprises at least 5 guanidino or amidino moieties, thereby increasing delivery of the conjugate into the ocular tissue compared to delivery of the compound in the absence of the delivery-enhancing transporter.

2. The method of claim 1, wherein delivery of the conjugate into the ocular tissue is increased at least two-fold compared to delivery of the compound in the absence of the delivery-enhancing transporter.

3. The method of claim 1, wherein delivery of the conjugate into the ocular tissue is increased at least ten-fold compared to delivery of the compound in the absence of the delivery-enhancing transporter.

4. The method of claim 1, wherein the ocular tissue is one or more layers of epithelial or endothelial tissue.

5. The method of claim 1, wherein the ocular tissue is the retina.

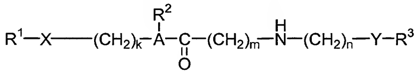
6. The method of claim 1, wherein the ocular tissue is the optic nerve.

7. The method of claim 1, wherein the linker is a releasable linker.

8. The method of claim 7, wherein the linker is stable in a saline solution a pH 7 but is cleaved when transported into a cell.

9. The method of claim 1, wherein the subunits are amino acids.

10. The method of claim 1, wherein the conjugate has a structure selected from the group consisting of structures 3, 4, or 5, as follows:



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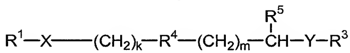

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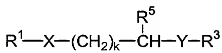

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wherein:

R^1 comprises the compound;

X is a linkage formed between a functional group on the biologically active compound and a terminal functional group on the linking moiety;

Y is a linkage formed from a functional group on the transport moiety and a functional group on the linking moiety;

A is N or CH;

R^2 is hydrogen, alkyl, aryl, acyl, or allyl;

R^3 comprises the delivery-enhancing transporter;

R^4 is S, O, NR^6 or CR^7R^8;

R^5 is H, OH, SH or NHR_6;

R^6 is hydrogen, alkyl, aryl, acyl or allyl;

k and m are each independently selected from 1 and 2; and

n is 1 to 10.

11. The method of claim 10, wherein X is selected from the group consisting of -C(O)O-, -C(O)NH-, -OC(O)NH-, -S-S-, -C(S)O-, -C(S)NH-, -NHC(O)NH-, $-SO_2NH-$, -SONH-, phosphate, phosphonate phosphinate, and CR^7R^8, wherein R^7 and R^8 are each independently selected from the group consisting of H and alkyl.

12. The method of claim 10, wherein the conjugate comprises structure **3**, Y is N, and R^2 is methyl, ethyl, propyl, butyl, allyl, benzyl or phenyl.

13. The method of claim 10, wherein R^2 is benzyl; k, m, and n are each 1, and X is -OC(O)-.

14. The method of claim 10, wherein the conjugate comprises structure **4**; R^4 is S; R^5 is NHR^6; and R^6 is hydrogen, methyl, allyl, butyl or phenyl.

15. The method of claim 10, wherein the conjugate comprises structure **4**; R^5 is NHR^6; R^6 is hydrogen, methyl, allyl, butyl or phenyl; and k and m are each 1.

16. The method of claim 1, wherein the conjugate comprises structure **6** as follows:

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wherein:

R^1 comprises the compound;

X is a linkage formed between a functional group on the biologically active compound and a terminal functional group on the linking moiety;

Y is a linkage formed from a functional group on the transport moiety and a functional group on the linking moiety;

Ar is an aryl group having the attached radicals arranged in an *ortho* or *para* configuration, which aryl group can be substituted or unsubstituted;

R^3 comprises the delivery-enhancing transporter;

R^4 is S, O, NR^6 or CR^7R^8;

R^5 is H, OH, SH or NHR_6;

R^6 is hydrogen, alkyl, aryl, arylalkyl, acyl or allyl;

R^7 and R^8 are independently selected from hydrogen or alkyl; and

k and m are each independently selected from 1 and 2.

17. The method of claim 16, wherein X is selected from the group consisting of -C(O)O-, -C(O)NH-, -OC(O)NH-, -S-S-, -C(S)O-, -C(S)NH-, -NHC(O)NH-, $-SO_2NH-$, -SONH-, phosphate, phosphonate phosphinate, and CR^7R^8, wherein R^7 and R^8 are each independently selected from the group consisting of H and alkyl.

18. The method of claim 16, wherein R_4 is S; R^5 is NHR^6; and R^6 is hydrogen, methyl, allyl, butyl or phenyl.

19. The method of claim 1, wherein the conjugate comprises at least two delivery-enhancing transporters.

20. The method of claim 1, wherein the conjugate is administered as an eye drop.

21. The method of claim 1, wherein the conjugate is administered as an injection.

22. The method of claim 1, wherein the delivery-enhancing transporter comprises a non-peptide backbone.

23. The method of claim 1, wherein the delivery-enhancing transporter is not attached to an amino acid sequence to which the delivery enhancing transporter molecule is attached in a naturally occurring protein.

24. The method of claim 1, wherein the delivery-enhancing transporter comprises from 5 to 25 guanidino or amidino moieties.

25. The method of claim 24, wherein the delivery-enhancing transporter comprises between 7 and 15 guanidino moieties.

26. The method of claim 24, wherein the delivery-enhancing transporter comprises at least 6 contiguous guanidino and/or amidino moieties.

27. The method of claim 1, wherein the delivery-enhancing transporter consists essentially of 5 to 50 amino acids, at least 50 percent of which amino acids are arginines or analogs thereof.

28. The method of claim 27, wherein the delivery-enhancing transporter comprises 5 to 25 arginine residues or analogs thereof.

29. The method of claim 28, wherein at least one arginine is a D-arginine.

30. The method of claim 29, wherein all of the arginines are D-arginines.

31. The method of claim 27, wherein at least 70 percent of the amino acids that comprise the delivery-enhancing transporter are arginines or arginine analogs.

32. The method of claim 27, wherein the delivery-enhancing transporter is seven contiguous D-arginines.

33. The method of claim 1, wherein the compound is a therapeutic for a disease selected from the group consisting of bacterial infections, viral infections, fungal infections, glaucoma, anterior, intermediate, and posterior uveitis, optic neuritis, Leber's neuroretinitis, retinitis, psudotumor/myositis, orbital myositis, hemangioma/lymphangioma, toxocariasis, behcet's panuveitis, inflammatory chorisretinopathies, vasculitis, dry eye syndrome (Sjogren's syndrome), corneal edema, accommodative esotropia, cycloplegia, mydriasis, reverse mydriasis, and macular degeneracy.

34. The method of claim 1, wherein the compound is selected from the group consisting of anti-bacterial compounds, anti-viral compounds, anti-fungal compounds, anti-protozoan compounds, anti-histamines, compounds that dialate the pupil, anethstetic compounds, steroidal antiinflammatory agents, antiinflammatory analgesics, chemotherapeutic agents, hormones, anticataract agents, neovascularization inhibitors, immunosuppressants, protease inhibitors, aldose reductase inhibitors, corticoid steroids, immunosuppressives, cholinergic agents, anticholinesterase agents, ,muscaric antagonists, sympathomimetic agents, α and β adrenergic antagonists, and anti-angiogenic factors.

35. The method of claim 34, wherein the compound is selected from the group consisting of acyclovir and cyclosporins.

36. The method of claim 1, wherein the compound is transported acrosss the blood-brain barrier.